

**Notice of Allowability**

Application No.

10/079,875

Applicant(s)

JACQUET, JOEL

Examiner

Tuan N Nguyen

Art Unit

2828

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/05/2004.
2. ☒ The allowed claim(s) is/are 1 and 3-17.
3. ☒ The drawings filed on 22 February 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
Don Wong  
Supervisory Patent Examiner  
Technology Center 2800

## DETAIL ACTION

### *Response to Amendment*

1. In responding to applicant's amendment filed 04/05/2004, claims 1, 3, 7, 8, 9, and 10 have been amended, claim 2 deleted, and claims 12-17 have been added.

## REASON FOR ALLOWANCE

### *Allowable Subject Matter*

2. The following is an examiner's statement of reasons for allowance - Applicant's response filed on 04/05/2004 has been considered, with respect to claims 1, 12, and 15 device and the method thereof, the references of the record fail to teach or suggest:
  1. a reflector external to said first resonant cavity delimiting the second resonant cavity thereinbetween, and selectively reflecting for an integer number N of optical frequencies, wherein said two opposed reflector members are not wavelength selective and delimit an amplifying first active section coupled to a phase tuning second active section, each of said two active sections connected to an electrical supply, said second active section having an effective group index that can be adjusted electro-optically as a function of an electrical voltage applied, said first and second active sections having dimensions such that a difference between optical frequencies of any two resonant modes of said first resonant cavity is never equal to a difference between optical frequencies of any two selectively reflected frequencies of said reflector, and second active section modifying an optical length of said first resonant cavity to provide for a selective coincidence of only one optical frequency between the resonant modes of said first resonant cavity and the selectively reflected frequencies of said reflector, wherein the difference

between any two adjacent reflected optical frequencies is constant and the reflected optical frequencies are interleaved with consecutive optical frequencies of resonant modes.

12. a reflector external to said first resonant cavity delimiting the second resonant cavity thereinbetween, and selectively reflecting for an integer number  $N$  of optical frequencies, wherein said two opposed reflector members are not wavelength selective and delimit an amplifying first active section coupled to a phase tuning second active section, each of said two active sections connected to an electrical supply, said second active section having an effective group index that can be adjusted electro-optically as a function of an electrical voltage applied, said first and second active sections having dimensions such that a difference between optical frequencies of any two resonant modes of said first resonant cavity is never equal to a difference between optical frequencies of any two selectively reflected frequencies of said reflector, and second active section modifying an optical length of said first resonant cavity to provide for a selective coincidence of only one optical frequency between the resonant modes of said first resonant cavity and the selectively reflected frequencies of said reflector, wherein said waveguide includes a plurality of first sampled Bragg reflector gratings corresponding to a first Bragg wavelength and a plurality of second sampled Bragg reflector gratings corresponding to a second Bragg wavelength, wherein each sample of the first and second Bragg gratings, with the possible exception of a first or a last sample of the Bragg gratings, is disposed on the reflector in a repeated pattern comprising one sample of the first Bragg gratings, a first sample of a plurality of third gratings, one sample of the second Bragg gratings, and a second sample of the third gratings.

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3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

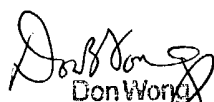
***Communication Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (571) 272-1948. The examiner can normally be reached on M-F: 7:30 - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.

Tuan N. Nguyen



Don Wong  
Supervisory Patent Examiner  
Technology Center 2800